



Nombre del alumno(a):
Ramirez Olvera Valeria
Materia:Aplicaciones web
Catedrático:Diana Kochitl Ruano Vargas
Practica 01
Grupo:TIID_04_01
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PRÁCTICA 01 – Instalación del Entorno Profesional

Objetivo general

El estudiante instalará y configurará las herramientas necesarias para desarrollar aplicaciones web modernas utilizando Angular como frontend, dejando preparado el entorno para integrar posteriormente el backend con Flask y MongoDB.

Herramientas a instalar

- Node.js (LTS)
- Angular CLI
- Visual Studio Code
- Extensiones de Visual Studio Code
- Git
- GitHub Desktop
- MongoDB Compass

Instalación de node js

Primero entramos al sitio de node js

The screenshot shows the official Node.js website. On the left, there's a dark sidebar with the Node.js logo and navigation links like 'Home', 'About', 'Get Node.js', 'Security', 'Ecosystem', 'Community', 'Events', 'Sponsorships', and 'Partners'. The main content area has a dark background with hexagonal patterns. At the top, it says 'Run JavaScript Everywhere'. Below that, it says 'Node.js® is a free, open-source, cross-platform JavaScript runtime environment that lets developers create servers, web apps, command line tools and scripts.' There are two prominent buttons: 'Get Node.js®' and 'Get security support for EOL Node.js versions'. On the right, there's a code editor window titled 'server.mjs' containing the following code:

```
1 // server.mjs
2 import { createServer } from 'node:http';
3
4 const server = createServer((req, res) => {
5   res.writeHead(200, { 'Content-Type': 'text/plain' });
6   res.end('Hello World!\n');
7 });
8
9 // starts a simple http server locally on port 3000
10 server.listen(3000, '127.0.0.1', () => {
11   console.log('Listening on 127.0.0.1:3000');
12 });
13
14 // run with 'node server.mjs'
```

Below the code editor, there's a 'JavaScript' button and a 'Copiar al portapapeles' (Copy to clipboard) button. At the bottom, it says 'Learn more what Node.js is able to offer with our [Learning materials](#)'.

Damos click en obtener Node js

The screenshot shows the Node.js download page. At the top, there are navigation links: Aprender, Acerca de, Descargar (highlighted in green), Blog, Documentación, Contribuir, and Certificación. Below the navigation is a search bar with placeholder text "Start typing...". On the right side of the header are icons for user profile, notifications, and settings.

The main content area is titled "Descarga Node.js®". It displays a terminal-like code block with Docker commands:

```
1 # Docker provee instrucciones dedicadas para cada sistema operativo.
2 # Por favor consulta la documentación oficial en https://www.docker.com/get-started/
3
4 # Descarga la imagen de Docker de Node.js:
5 docker pull node:24-alpine
6
7 # Crea un contenedor de Node.js e inicia una sesión shell:
8 docker run -it --rm --entrypoint sh node:24-alpine
9
10 # Verifica la versión de Node.js:
11 node -v # Debería mostrar "v24.13.0".
12
13 # Verifica versión de npm:
14 npm -v # Debería mostrar "11.6.2".
```

Below the code block are two buttons: "PowerShell" and "Copiar al portapapeles".

Further down, it says "Docker is a containerization platform. If you encounter any issues please visit Docker's website".

It also mentions "O obtiene una versión pre compilada de Node.js® para Windows usando la arquitectura x64".

At the bottom are two download buttons: "Windows Installer (.msi)" and "Standalone Binary (.zip)".

Después de descargar la app ,ingresamos a nuestra terminal

Ingresamos : Para la verificación de ambas versiones

```
C:\Users\valer>node -v
v24.12.0
```

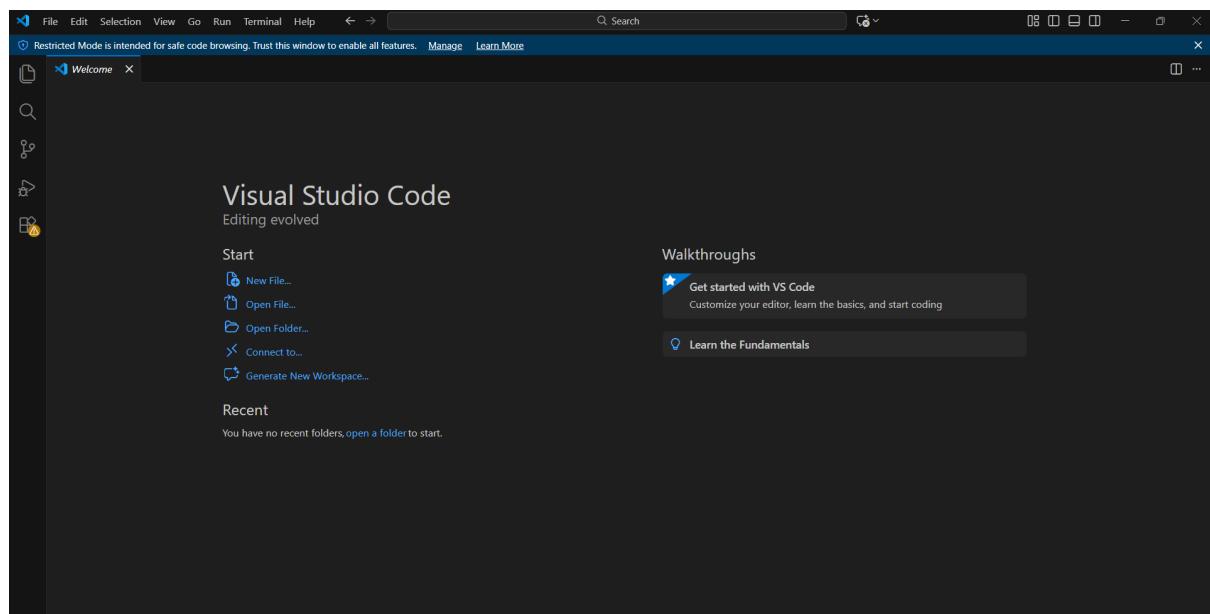
```
C:\Users\valer>npm -v
11.6.2
```

Instalación de Angular Cli

```
C:\Users\valer>npm install -g @angular/cli
added 298 packages in 35s
68 packages are looking for funding
  run 'npm fund' for details
C:\Users\valer>ng version

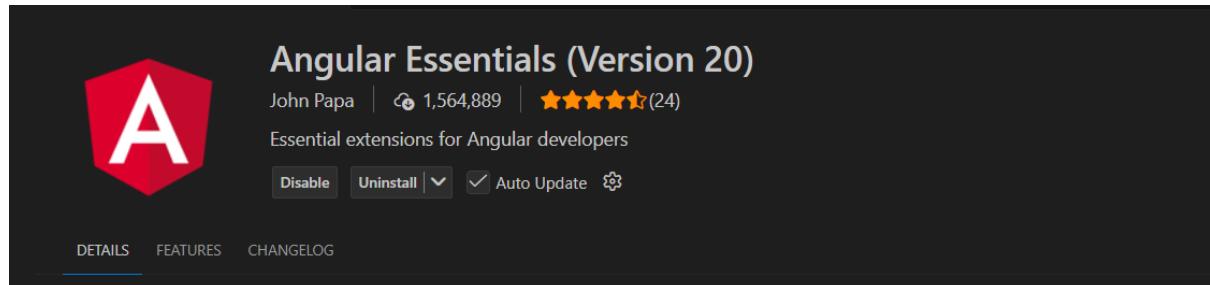
Angular CLI      : 21.1.0
Node.js          : 24.12.0
Package Manager : npm 11.6.2
Operating System : win32 x64
```

Instalación de visual studio :

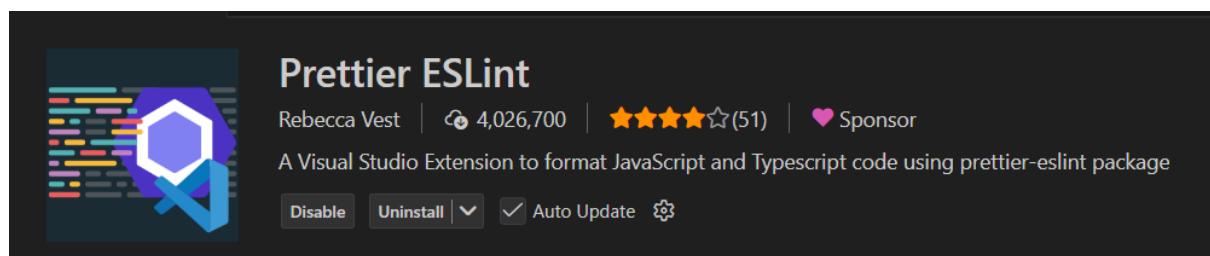


Instalación de extensiones

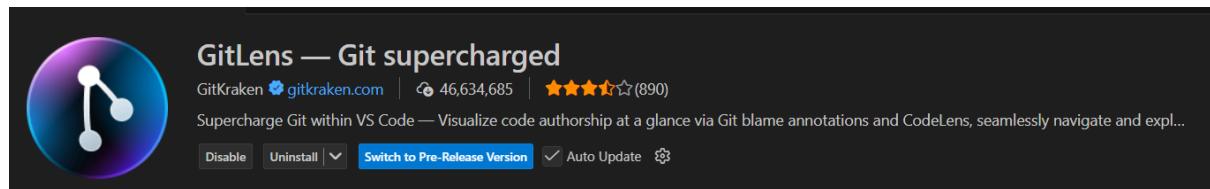
Angular



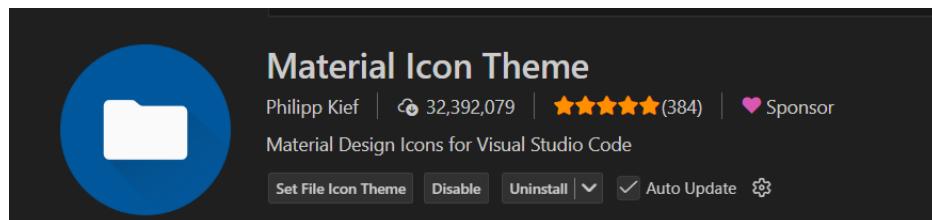
Prettier



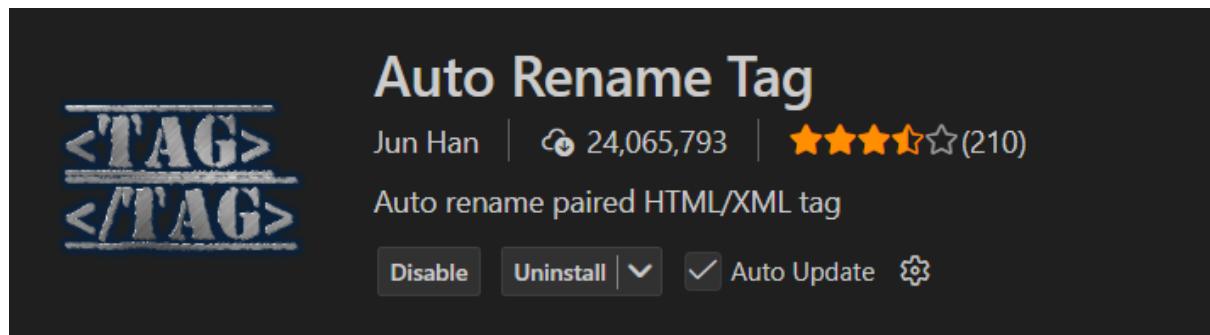
ESLint



Material Icon Theme



Auto Rename Tag



Deshabilitar política de seguridad.

```
Windows PowerShell
Copyright (C) Microsoft Corporation. Todos los derechos reservados.

Instale la versión más reciente de PowerShell para obtener nuevas características y mejoras. https://aka.ms/PSWindows

PS C:\Users\valer> Get-ExecutionPolicy
Restricted
PS C:\Users\valer> Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope CurrentUser
PS C:\Users\valer>
PS C:\Users\valer> Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope CurrentUser
PS C:\Users\valer>
PS C:\Users\valer> Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope CurrentUser
PS C:\Users\valer> Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope CurrentUser
PS C:\Users\valer> Get-ExecutionPolicy
RemoteSigned
PS C:\Users\valer>
```

Instalación y configuración de Git

verificacion de instalacion

```
Microsoft Windows [Versión 10.0.26100.7462]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\valer>git --version
git version 2.52.0.windows.1

C:\Users\valer>
```

Configurar identidad global:

```
Microsoft Windows [Versión 10.0.26100.7462]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\valer>git --version
git version 2.52.0.windows.1

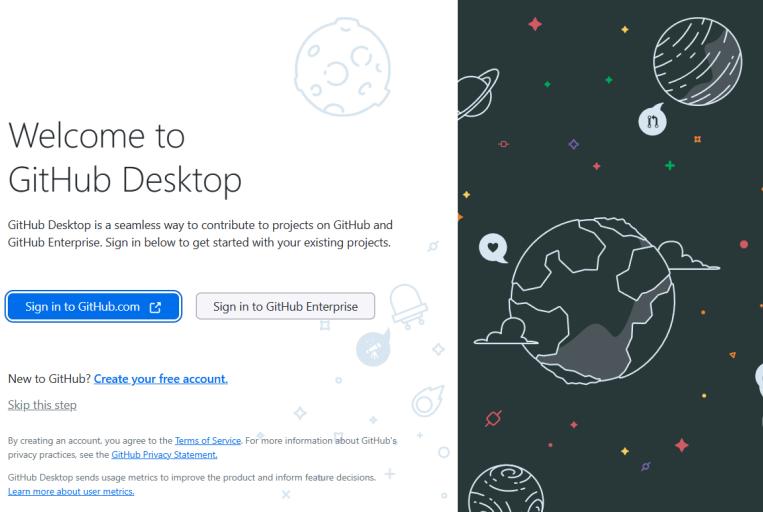
C:\Users\valer>git config --global user.name "Valeria"
C:\Users\valer>git config --global user.email "valrami@miccorreo.upp.edu.mx"

C:\Users\valer>git config --list
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
http.sslbackend=schannel
core.autocrlf=true
core.fscache=true
core.symlinks=false
pull.rebase=false
credential.helper=manager
credential=https://dev.azure.com/usehttppath=true
init.defaultbranch=master
user.name=Valeria
user.email=valrami@miccorreo.upp.edu.mx

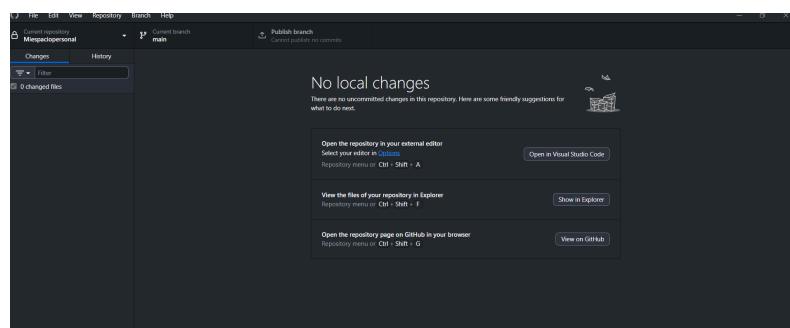
C:\Users\valer>
```

GitHub Desktop

Descargamos Github

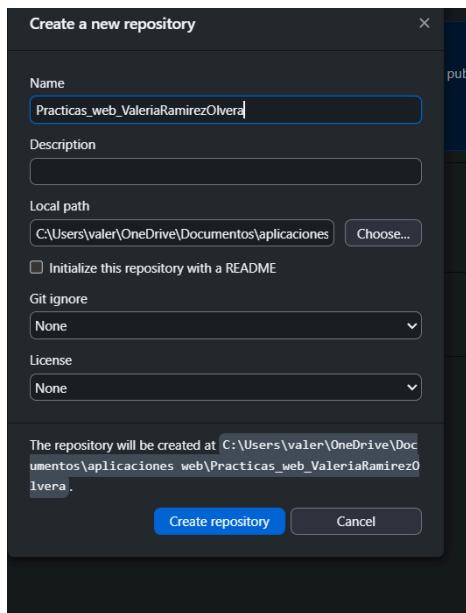


Clonar un repositorio existente.

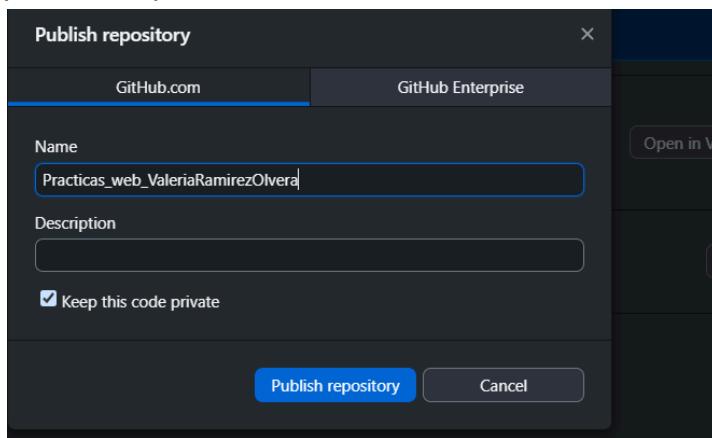


 Miespaciotpersonal	15/01/2026 09:00 p. m.	Carpeta de archivos
 index	28/12/2025 08:16 p. m.	Microsoft Edge HT...
 style	28/12/2025 07:58 p. m.	Archivo de origen ...

Crear repositorio local -practicas



publicar repositorio



Crear carpeta

 Practica1	15/01/2026 09:10 p. m.	Carpeta de archivos
---	------------------------	---------------------

Crear proyecto en angular

Creamos nuestro proyecto :

```
PS C:\Users\valen\OneDrive\Documentos\Aplicaciones web\Practicas_web\ValeriaRamirezOlvera> ng new Practica01
Would you like to share pseudonymous usage data about this project with the Angular Team
at Google under Google's Privacy Policy at https://policies.google.com/privacy. For more
details and how to change this setting, see https://angular.dev/cli/analytics.

Yes

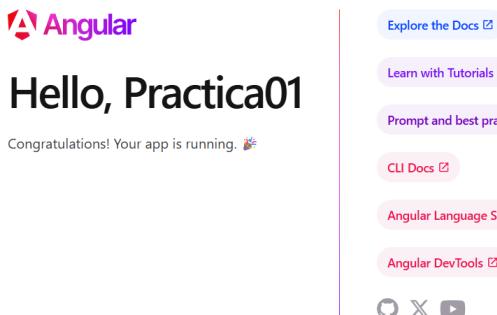
Thank you for sharing pseudonymous usage data. Should you change your mind, the following
command will disable this feature entirely:

  ng analytics disable --global

Global setting: enabled
Local setting: No local workspace configuration file.
Effective status: enabled
✓ Which stylesheet system would you like to use? CSS [ https://developer.mozilla.org/docs/web/css
✓ Do you want to enable Server-Side Rendering (SSR) and Static Site Generation (SSG/Prerendering)? Yes
✓ Which AI tools do you want to configure with Angular best practices? https://angular.dev/ai/develop-with-ai None
CREATE Practica01/angular.json (2148 bytes)
CREATE Practica01/package.json (1190 bytes)
CREATE Practica01/README.md (1522 bytes)
CREATE Practica01/tsconfig.json (606 bytes)
CREATE Practica01/.editorconfig (131 bytes)
CREATE Practica01/.gitignore (666 bytes)
CREATE Practica01/tsconfig.app.json (464 bytes)
CREATE Practica01/tsconfig.spec.json (456 bytes)
CREATE Practica01/.vscode/extensions.json (134 bytes)
CREATE Practica01/.vscode/launch.json (499 bytes)
CREATE Practica01/.vscode/mcp.json (191 bytes)
CREATE Practica01/.vscode/tasks.json (1820 bytes)
CREATE Practica01/src/main.ts (228 bytes)
CREATE Practica01/src/index.html (309 bytes)
CREATE Practica01/src/styles.css (81 bytes)
CREATE Practica01/src/main.server.ts (306 bytes)
CREATE Practica01/src/server.ts (1677 bytes)
CREATE Practica01/src/app/app.spec.ts (700 bytes)
CREATE Practica01/src/app/app.ts (304 bytes)
CREATE Practica01/src/app/app.css (0 bytes)
CREATE Practica01/src/app/app.html (20446 bytes)
CREATE Practica01/src/app/app.module.ts (453 bytes)
CREATE Practica01/src/app/app-routing.module.ts (89 bytes)
CREATE Practica01/src/app/app.config.server.ts (438 bytes)
CREATE Practica01/src/app/app.routes.server.ts (174 bytes)
CREATE Practica01/public/favicon.ico (15886 bytes)
```

Browser bundles		
Initial chunk files	Names	Raw size
main.js	main	48.51 kB
styles.css	styles	95 bytes
Initial total		48.60 kB
Server bundles		
Initial chunk files	Names	Raw size
main.server.mjs	main.server	49.77 kB
server.mjs	server	1.81 kB
polyfills.server.mjs	polyfills.server	243 bytes

Evidencia: aplicación Angular funcionando en <http://localhost:4200>



Instalacion de Mongo DB



Mongo DB conectado

